



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,574	10/27/2003	Jonathan A. Gibbs	CML01372EV	3529

22917	7590	08/22/2007
MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196		

EXAMINER	
STORM, DONALD L	

ART UNIT	PAPER NUMBER
2626	

NOTIFICATION DATE	DELIVERY MODE
08/22/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.Schaumburg@motorola.com
APT099@motorola.com

Office Action Summary

Application No.

10/694,574

Applicant(s)

GIBBS ET AL.

Examiner

Donald L. Storm

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on October 27, 2003 through March 4, 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-11, 14 and 15 is/are rejected.
- 7) ☒ Claim(s) 1-7 and 10-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Oath/Declaration

1. The replacement declaration submitted by the Applicant was received on March 4, 2004.

Drawings

2. Figure 1 is objected to because it is not designated by a legend such as --PRIOR ART--. The legend is necessary in order to clarify what Applicant's invention is because only that which is old is illustrated. See MPEP § 608.02(g). The specification describes Fig. 1 as prior art on page 6, line 10.

3. A permanent replacement sheet (a minimum being a black ink sketch suitable for publication) in compliance with 37 CFR 1.121(d) containing at least the corrected, substitute drawing for each figure being corrected is required in response to this Office action. Any amended, replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. Corrected drawing sheets may no longer be held in abeyance. REPLACEMENT SHEETS LESS THAN THE MINIMUM DESCRIBED ABOVE WILL NOT BE

CONSIDERED A *BONA FIDE* ATTEMPT TO PROVIDE A COMPLETE REPLY. See 37 C.F.R. § 1.121(d), § 1.81(d), § 1.85(a), and MPEP § 608.02 IV.

Specification

4. The title is objected to because it is not sufficiently descriptive of the invention. A new title is required that is clearly indicative of the invention to which the claims are directed. See MPEP § 606.01. The Examiner suggests that the Applicant consider a title including these elements: "Method and Apparatus of Common Compressed Voice Format for Tandem Network Communication."

5. The specification is objected to because of the following informalities. See 37 CFR 1.71 and MPEP 608.01. Appropriate correction is required.

The symbol "LTP" (page 8, line 16) is not defined close to the location of first use. Appropriate correction is required. To preclude an objection for adding new matter to the specification, the Applicant should point out specific support in the disclosure as filed for any added definition. If the definition to be added is --long term predictive--, that addition will not be regarded as new matter.

6. The Examiner notes, without objection, that page 5 of the specification has explicit reference to the claims by claim number. As the claim numbers related to this subject matter may change by amendment to the claims or by renumbering at the time of allowance, it may develop that reference to the claims by number may refer a claim incorrectly and cause delays at the time of issue and printing. It is in the best interests of the patent community that the Applicant be aware of these editorial situations and consider changes during normal review and revision of the specification.

7. The Examiner notes, without objection, the possibility of informalities in the abstract. The Applicant may wish to consider changes during normal review and revision of the disclosure.

a. The abstract exceeds the general guidelines limit of a single paragraph. See MPEP § 608.01(b).

b. The phrase "FIG. 2" (line 20) is unconnected to the subject matter and appears to serve no purpose in this abstract.

Claim Informalities

8. Claim 1, and by dependency claims 2-3, are objected to under 37 CFR 1.75(a) because the meaning of the phrase "the coding scheme of the first codec" (final line) needs clarification. Because no coding scheme was previously recited and it was not previously set forth in the claim that the first codec is characterized by only one, particular coding scheme, it may be unclear as to what element this phrase refers. To further timely prosecution and evaluate prior art, the Examiner has interpreted this phrase as --the coding scheme used by the first codec--.

9. Claim 3 is objected to under 37 CFR 1.75(a) because the meaning of the phrase "the LPCs" (line beginning v.) needs clarification. Because no LPCs were previously recited, it may be unclear as to what element this phrase refers. To further timely prosecution and evaluate prior art, the Examiner has interpreted this phrase as --the LPC interpolations--.

10. Claims 4 and 5, and by dependency claims 6 and 7, are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP 608.01(i).

Since the preceding claim 3 is also a multiple dependent claim, which is also dependent to claims 1 or 2, the claims 4-7 have not been further treated on the merits because multiple dependent claims dependent to other multiple dependent claims are unduly confusing for determining how many prior claims are actually referenced. See MPEP § 608.01(n).

11. Claim 10 is objected to under 37 CFR 1.75(a) because the meaning of the phrase “the first codec” (lines 2-3) needs clarification. Because no “first codec” was previously recited, it may be unclear as to what element this phrase refers. To further timely prosecution and evaluate prior art, the Examiner has interpreted this phrase as the codec first recited in claim 8, namely, the codec of a first portion of a network.

12. Claim 11 is objected to for the same reasons as claim 10 because the limitations are recited using obviously similar phrases, for at least the first occurrence of the phrase “the first codec”.

13. Claim 11 is objected to under 37 CFR 1.75(a) because the meaning of the phrase “the common compressed voice format representation” (line 4) needs clarification. Because no common compressed voice format representation was previously recited, it may be unclear as to what element this phrase refers. To further timely prosecution and evaluate prior art, the Examiner has interpreted this phrase as --the common data format representation --.

14. Claim 12 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP 608.01(i).

Since the preceding claim 3 is also a multiple dependent claim, which is also dependent to claims 1 or 2, the claim 12 has not been further treated on the merits because multiple dependent claims dependent to other multiple dependent claims are unduly confusing for determining how many prior claims are actually referenced. See MPEP § 608.01(n).

15. Claim 13 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP 608.01(i).

Since the preceding claim 10 is also a multiple dependent claim, which is also dependent to claims 8 or 9, the claim 13 has not been further treated on the merits because multiple dependent claims dependent to other multiple dependent claims are unduly confusing for determining how many prior claims are actually referenced. See MPEP § 608.01(n).

16. The form of the claims does not follow Office practice. While there is no set statutory form for claims, the present Office practice is to insist that each claim must be the object of a sentence starting with “I (or we) claim”, “The invention claimed is”, or the equivalent. The Applicant is encouraged to insert a desired introduction before claim 1. If, at the time of allowance, appropriate terminology is not present, it is inserted by the technical staff. See MPEP § 608.01(m).

Claim Rejections - 35 USC § 112

17. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

18. Claims 3, 14, and 15 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

19. Claim 3 is indefinite because the scope of a claim cannot be determined when the symbols making up the claim limitations are not defined with precision and definiteness. The symbol "LTP" (line beginning *vi.*) should be defined in the disclosure. It should also be defined in the claims at least the first time used, if a concise and accurate definition is available. No new matter may be introduced into the disclosure as filed.

20. Claim 14 is indefinite in that it fails to point out what is additionally included or excluded by the claim language. This claim is an omnibus type claim.

21. Claim 15 is indefinite in that it fails to point out what is additionally included or excluded by the claim language. This claim is an omnibus type claim.

Claim Rejections - 35 USC § 101

22. The following is a quotation of 35 U.S.C. 101:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

23. Claims 1-3 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. See MPEP § 2106, "Patent Subject Matter Eligibility."

24. Claim 1 recites a step that consists solely of manipulation of symbols or data. Taken as a whole, the claim is drawn to a mathematical method that manipulates parameters. Without

setting a practical application for the determined values, the claimed invention as a whole does not produce a useful, concrete, and tangible result. A method that simply manipulates data is nonstatutory as a judicial exception under 35 U.S.C. 101 despite the fact that the data might inherently have some usefulness and despite its implementation by computer. The focus is not on whether the steps taken to achieve a particular result are useful, tangible, and concrete, but on the practical application of the judicial exception by producing a physical transformation or a result tied to the material world that does not preempt the judicial exception. If the disclosure as filed supports it, for example, the encoded signal in common data format might produce a practical application if it transformed a material storage medium or material display device, or if it were used in some other way at least momentarily, so that it could be relied upon for useful purposes. For such subject matter to be statutory, the claimed process must actively and positively recite a result of the algorithm with a non-abstract application.

The further limitations of the dependent claims 2 and 3 continue to describe the manipulation of symbols or data, and do not provide the necessary tangible result to satisfy the requirements of 35 U.S.C. 101.

Claim Rejections - 35 USC § 102

25. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

El-Maleh

26. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by El-Maleh et al. [US Patent 7,023,880].

27. Regarding claim 1, El-Maleh [at column 12, lines 25-47] describes an embodiment wherein tandem communication has descriptors of the encoding included as the method having the content and functionality of the recited limitations recognizable as a whole to one versed in the art as the following terminology:

applying a format to an encoded signal and wherein upon application the format comprises descriptors of the encoded signal of a first codec [at column 12, lines 30-38, as form a multi-rate frame from a variable-rate vocoder frame introduced to a system and form the multi-rate frame with an infrastructure element that is a specific mode index that indicates the type of variable-rate vocoder frame that is cargo of the multi-rate frame].

For that embodiment and all of El-Maleh's embodiments, the following are described:

wherein upon application the common data format comprises quantised parameters of the encoded signal produced by the first codec [at column 2, lines 12-22, as the output frame of the vocoder has bit representation of a set of parameters representing and input speech signal];

a common data format is applied to the encoded signal [at column 8, lines 9-11, as the output frame of the AMR (adaptive multi-rate) vocoder has a generic structure comprising a core frame of the bits produced by the encoder];

the encoded signal produced by a first codec [at column 9, lines 34-37, as the variable-rate vocoder produces bits according to the selected frame format and encodes bits for transmission over a channel];

the first codec is a codec of a first portion of a network [see Fig. 1, items 10, 12, 14, and their descriptions, especially at column 4, line 53-column 5, line 44, of the multi-rate, Selectable

Mode Vocoder (SMV) remote stations engaged in telephone calls via their base stations during typical operation of the wireless communications network].

28. Regarding claim 2, El-Maleh also describes:

the first and second portions are part of the same overall network [see Fig. 1, items 10, 12, 14, 16, and their descriptions, especially at column 4, lines 3-14, of the radio network, the internetworking, the PSTN, and the IP network of the wireless communications network].

Blust

29. Claims 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Blust et al. [US Patent 6,718,183].

30. Regarding claim 8, Blust [at column 2, line 50-column 3, line 27] describes a method by describing the content and functionality of the recited limitations recognizable as a whole to one versed in the art as the following terminology:

translating a common data format representation of an encoded signal produced by a codec of a first portion of a network into an encoded signal compatible with a second codec, which is a codec of a second portion of a network [see Fig. 6, items 602-614, and their descriptions, especially at column 8, lines 19-46, of digitizing data from substitute vocoder format S, as encoded from sending subscriber unit 602, sending via format S of vocoder 609 from the left side of intervening network 610, back to vocoder substitute format S as adhered to by vocoder 613 on the right side of intervening network 610].

31. Regarding claim 9, Blust also describes:

the first and second portions are part of the same overall network [see Fig. 6, items 602-614, and their descriptions, especially at column 8, line 53-column 9, line 6, of the sending unit communicating through the base station, the sending MSC, from the left side of the intervening network, via the receiving MSC, the receiving base station to the receiving unit on the right side of the intervening network].

32. Regarding claim 10, Blust also describes:

if the second codec is the same as a first codec, dequantizing the common data format representation and substantially reconstituting the original encoded signal [at column 8, lines 21-27 and 41-46, as the sending and receiving units substitute a vocoder format S for their vocoder formats and the digitized data sent in format S is converted to analog data].

Mermelstein

33. Claims 8-9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Mermelstein et al. [US Patent 5,995,923].

34. Regarding claim 8, Mermelstein [at Fig. 3b and column 9, line 57-column 10, line 6] describes a method by describing the content and functionality of the recited limitations recognizable as a whole to one versed in the art as the following terminology:

translating a common data format representation of an encoded signal produced by a codec of a first portion of a network into an encoded signal compatible with a second codec, which is a codec of a second portion of a network [at column 15, line 4-column 16, line 10, as convert a common data format speech frame that was built by the pseudodecoder and sent by the pseudodecoder via a telecommunication company network into IS 641 compressed speech

format for the EFRC to decode properly after receiving the IS 641 via wireless link (RF channel)].

35. Regarding claim 9, Mermelstein also describes:

the first and second portions are part of the same overall network [at column 7, lines 57-60, as the internet using different vocoders in different parts of the network].

36. Regarding claim 11, Mermelstein also describes:

if the second codec is different to a first codec [at column 10, line 65-column 11, line 14, as if the connection terminates on a different type vocoder from the signal-issuing transcoder];

dequantise the common compressed voice format representation and apply a conversion algorithm to convert components of the encoded signal produced by the/a first codec into components compatible with the second codec [at column 15, line 11-column 16, line 10, as convert the common format speech data, which was produced and sent by the pseudodecoder, into IS 641 by reading the LPC coefficients, converting them, and requantizing them into LSF vector of the IS 641 format for the EFRC decoder to decode properly].

Claim Rejections - 35 USC § 103

37. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. The Applicant is advised of the obligation under 37 CFR 1.56 to point

out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

El-Maleh and Suzuki

38. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over El-Maleh et al. [US Patent 7,023,880] in view of Suzuki et al. [US Patent 6,594,626].

39. Regarding claim 3, El-Maleh describes the included claim elements by dependency as indicated elsewhere in this Office action. El-Maleh [at column 5, lines 31-44 and at column 6, line 60-column 7, line 52] also describes the coding scheme of the codec of the first portion of the wireless communications network. However, El-Maleh treats the variable rate encoding schemes as known and does not go into detail of their characteristics, not even of the exemplary CELP encoding. In particular, El-Maleh does not explicitly describe particular coding scheme characteristics.

Suzuki [at column 7, lines 23-36] also describes CELP encoding using multiple modes and sends a code with the linear predictive parameters to identify the mode to the decoder for its reconstruction of high-quality speech. Suzuki describes:

the type of codebook encoding format (or other) is described in accordance with the format [see index I0 of a codebook 14, index I1 of a codebook 15, and their descriptions especially at column 10, lines 60-63, of selecting and transmitting the mode information and the codebook index].

As indicated, Suzuki shows that including characteristics of the type of codebook encoding format codebook in mode identification information forwarded to a decoder was known to artisans at the time of invention. El-Maleh [at column 12, lines 40-44] also points out that sending the type of encoding characteristics to the decoder has the advantage that the receiving end of the communications network needs less processing resources than other designs

of generic frame formats. To the extent that El-Maleh's identifier that is included in the generic frame does not necessarily include type of codebook encoding format, El-Maleh provides the reason that a person ordinary skill in the art of tandem communications at the time of invention would have found it obvious to include the concepts described by Suzuki, at least including the codebook format information when multiple codebooks are used, with El-Maleh's mode identification sent to the encoder because the receiving end can be designed and implemented with less demanding processing resources.

Conclusion

40. Any response to this action may be mailed to:

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

or faxed to:

(571) 273-8300, (for both formal communications intended for entry and for informal or draft communications, but please label informal fax as "INFORMAL" or "DRAFT")

Some patent correspondence and/or fees may be submitted using the Office's electronic filing system (EFS). See the Office's Internet Web site for additional information, for example [http:// www. USPTO. gov/ ebc/ ebc_faqs. htm](http://www.USPTO.gov/ebc/ebc_faqs.htm).

Some patent correspondence may be delivered by hand or delivery services, other than the USPS, addressed as follows and brought to U.S. Patent and Trademark Office, Customer Service Window, **Mail Stop Amendment**, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

41. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L. Storm, of Division 2626, whose telephone number is (571) 272-7614. The examiner can normally be reached on weekdays between 7:00 AM and

3:30 PM Eastern Time. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Inquiries regarding the status of submissions relating to an application or questions on the Private PAIR system should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 571-272-4100 between the hours of 6 a.m. and midnight Monday through Friday EST, or by e-mail at: ebc@uspto.gov. For general information about the PAIR system, see <http://pair-direct.uspto.gov>. If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

August 16, 2007

/Donald L. Storm/

Primary Patent Examiner
Division 2626